



ボイスプロテーゼを最大限に活用するために

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オランダがんセンターの紹介

- 言語聴覚士
- 臨床研究者・指導者



あなたの身体に起こる変化を理解しましょう

身体構造上の変化
ボイスプロテーゼが果たす役割



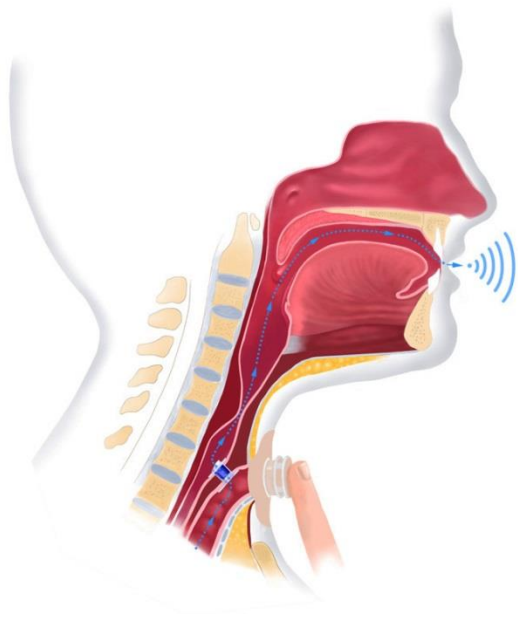
音声獲得率を高めるための訓練

- 発声・スピーチ練習

- 言語聴覚士がチーム医療に加わっている国では高い音声獲得率が得られています。（スペイン：74%、オランダ 95%）
- 患者様にボイスプロテーゼ使用方法をトレーニングし、最良の発声獲得を目指します。

1. González Poggioli N, González-Botas JH, Vázquez Barro JC, Novoa Juiz V, Martínez Vidal J. [Phonation fistulas today]. *Acta Otorrinolaringol Esp.* 2007 Mar;58(3):110-2.
2. Op de Coul BM, Hilgers FJ, Balm AJ, Tan IB, van den Hoogen FJ, van Tinteren H. A decade of postlaryngectomy vocal rehabilitation in 318 patients: a single Institution's experience with consistent application of provox indwelling voice prostheses. *Arch Otolaryngol Head Neck Surg.* 2000 Nov;126(11):1320-8.

トレーニングのステップ



5. 声道 – 明瞭度

4. 音源


3. ヴォイスプロテーゼと気管食道シャント孔

2. 空気供給

1. 永久気管孔

永久気管孔


- 耳障りな音、目障りな動作を無くすこと
 - － 指のみを動かす
 - － 肘を前に動かさない
 - － タイミングに気を配る
 - － 密閉させる
 - 最少限の力で、無駄な力を入れない
 - 正しい指の位置
 - アドヒーズとボタンの密閉
- 左手か右手か？
- 人工鼻と自動スピーチバルブの使用




Hospital: _____
Department: _____
Clinician: _____
Contact information: _____

Closing the stoma with your Heat and Moisture Exchanger (HME)

Make sure your stoma is clean. Attach your HME cassette (Heat and Moisture Exchanger) following your clinician's guidelines and the HME manual.

- 

Press on the HME with a finger to close the stoma. Practice in front of a mirror if you are having a hard time getting a good closure.
- Say /hay/
- 

Take your finger off the HME after you have spoken. Be careful not to release your finger too early.


Tip: Keep your arm flat in front of your chest. Keep movements small so that you do not draw attention to your stoma. Keep your head in a straight position.
- Work on timing.

 - Avoid sound coming from your stoma caused by air escaping:
 - When you close off too late
 - When you don't press firmly enough
 - When you take your finger off the stoma too early

Tip: Practice closing with both hands so you can switch hands if needed.

Tip: You may want to try with a stoma cover. You can close your HME on top of the cover.

Tip: Vary the finger pressure you use to close your stoma and listen to the effect of air escaping underneath the fit of the HME. Your finger pressure should be just firm enough to avoid the air escaping. Using too much finger pressure might hurt your stoma and might beiring.



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空気供給



- 健全な肺機能を保つために人工鼻が必要
- 十分な呼気圧を保つこと
 - － 少ない方がいいが、ゼロではダメ
- はじめはやさしく
 - － 急に発声しようとするすると新声門への空気の流れを妨げる
- スムーズは空気の流れを作る
- 腹式呼吸を使って
 - － 首の緊張を和らげる
- 自然な息継ぎ、フレーズ、流暢さ
- 発声時間を延ばすように。より楽に自然に話すように。

LaryLogics
BY ATOS MEDICAL

Hospital: _____
Department: _____
Clinician: _____
Contact information: _____

Improve your Speech

When using a voice prosthesis, fluency of speech and the ease of speaking depend on a number of systems working together.

- Breath support
- Coordination of closing your mouth
- Coordination of timing. Specifically the length of your phrases and pausing at natural places in sentences. This improves your ability to speak naturally and easy.

Practice using natural pausing

Tip: Pauses are normally at a natural break in a phrase and not in the middle of the word.

1. Say the days of the week out loud as follows:
 - breathe in slightly
 - close your mouth
 - say the day of the week
 - remove your finger from your mouth
2. Now pause after saying two days of the week
3. Now try to say these sentences and break at the natural pause (the comma).

When I am finished cooking, I will wash the dishes.
For dinner tonight, we will be having chicken and potatoes.
Don't forget your umbrella, it is very wet and rainy outside.

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ATOS MEDICAL
Leading the way in ENT

ヴォイスプロテーゼと気管食道シャント孔

- ヴォイスプロテーゼ
 - － 清潔に保つ
 - － どんなふうに見えているか？
- 声色が変化したり発声しにくになったら・・・
 - － 主治医または言語聴覚士にすぐ知らせること
- ボイスプロテーゼ周辺組織に変化を感じたら・・・
 - － 主治医または言語聴覚士にすぐ知らせること
- 取扱説明書をよく読んで、説明書に沿って使用すること



Daily Care of your Voice Prosthesis - Provox® Flush



Clean the voice prosthesis in the morning and evening and after each meal using the Provox Brush and the Provox Flush.

1. Use the Provox Flush with drinking water or air.

Do not use with any liquid other than water.

Tip: If you need to use the Flush with water, practice with an air tube. Continue with water when you have confidence during handling before going to use it.

2. Place the pointed end of the Flush into a glass of water and expunge the air above the bulb. Water will be sucked into the bulb.

3. Insert the pointed end of the Provox Flush into the voice prosthesis. Make sure it is seated off properly. Hold the Flush steady in place with your hand. The Flush can be held for better access to the voice prosthesis.

4. Use your other hand to squeeze the bulb. Gently squeeze the water or air into the prosthesis.

5. Tilt the bulb up and release your fingers on the bulb.

The bulb will refill. Remove the Flush from the voice prosthesis.

6. Disconnect the bulb from the shaft. Clean both parts with drinking water and handwashing detergent in accordance with the Provox Flush manual to remove any dried mucus or food particles. Allow to air dry.

7. Clean and disinfect the Provox Flush in accordance with the manual.



Daily Care of your Voice Prosthesis - Provox® Brush



Clean the voice prosthesis in the morning and evening and after each meal using the Provox Brush and the Provox Flush.

1. Moisten the bristles of the Provox Brush and then insert all the way through the voice prosthesis. Pull back on the Brush if you feel any resistance.

2. Move the Brush back and forth while moving the brush at the same time, this will clean the whole prosthesis.

3. When you are finished:

a. Clean the brush with drinking water and hand washing detergent in accordance with the Provox Brush manual.

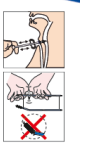
b. Rinse with drinking water and store dry.

4. Replace the Brush once a month or sooner if the bristles look worn and frayed.

Tip: If needed the face shaft of the brush can be bent to better access to the voice prosthesis. Do not touch the windward of the brush. Do not rotate the brush during cleaning under the shaft cover.

Tip: If your prosthesis is 1.5 cm or longer than usual, use 2 Brush. If your prosthesis is shorter than usual, use 1 Brush.

5. Clean and disinfect the Provox Brush in accordance with the manual.



ヴォイスプロテーゼのお手入れ

- ブラシ

- 1日2回と毎食後を目安に
- 前後に動かし、くるっと回してお手入れ
- 使いやすいように曲げて使える
 - 回せなくなる
 - 曲げるのは1回まで
 - 金属部分は曲げないこと



- フラッシュ

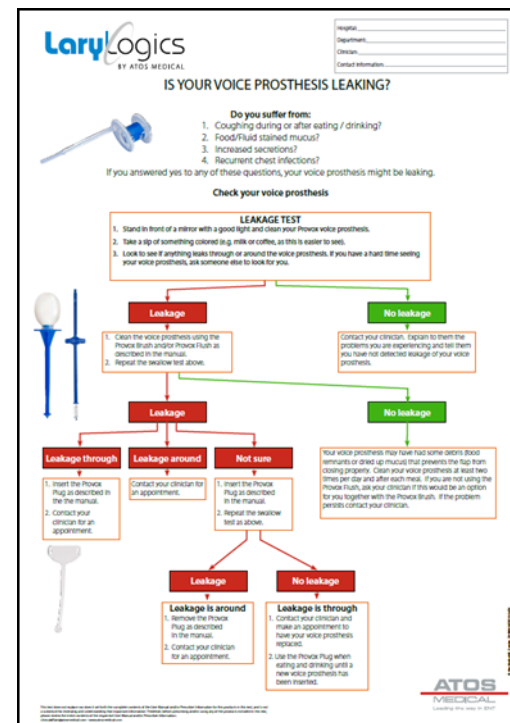
- 1日2回と毎食後を目安に
- 効果は実証済み¹
- 空気か水で（両方も可）
- 曲げて使える



1. Free RH, Van der Mei HC, Elving GJ, Van Weissenbruch R, Albers FW, Busscher HJ. Influence of the Provox Flush, blowing and imitated coughing on voice prosthetic biofilms in vitro. *Acta Otolaryngol* 2003;123(4):547-551..

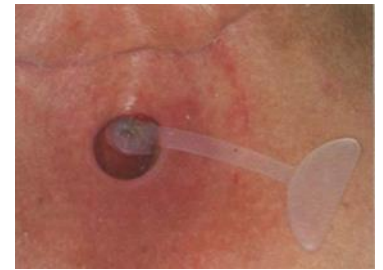
漏れているときは以下のことが生じています

- ほとんどいつも：
 - － 飲み物を飲むと咳が出る
- 時々：
 - － 飲んだ後、食物に変色した粘液が付着
 - － 粘液の量が増える
- 周囲または内径から漏れている



適切な時期に交換しましょう

- 漏れを防ぐ為にプラグを使用する
- 主治医に交換時期かどうか診てもらう
 - － 誤嚥を避ける
 - － 脱水症状を避ける



音声源

- 手術内容によって決まってきます
- 以下に注意を払いましょう：
 - － 姿勢
 - 背筋をまっすぐに
 - リラックスして
 - － 頭の位置
 - 自然に
 - リラックスして
 - 最も声が出しやすい位置で

次のことに取り組んで、更に上達しましょう

- 音程
- 抑揚(イントネーション)
- アクセント
- 流暢さ
- 歌う



明瞭度

- 電話での話し方
 - － 受話器を気管孔から離し、口の前にもってくる
- 大声は不要。はっきりと話すことを心がける

こんなこともできるようになりますよ！



今日のまとめ

- 気管孔を密閉すること
- はじめは優しく声を出す
- 規則正しくスムーズな空気供給を心がけて気
- 気を楽しみ、リラックスして発声をする
- 良い姿勢で
- 怒鳴らず、「はっきりと」を心がけて